

Homeowner Pulls a \$12,305 Tax Break Out of Local Landfill

The adverse economies of scale in residential C&D waste streams leave regulators and vendors alike wringing their hands. As a result the residential C&D waste stream has been largely ignored. The homeowners were determined to recover as much as possible before their home was demolished, and greenGoat listened to the promise of breaking through historic barriers in the residential market.

greenGoat scheduled tours of the home with local community development leaders, salvage operations, and even a few landscapers to maximize salvage. Everyone liked what they saw; the kitchen and bathrooms were nicely outfitted, and many items were claimed quickly.

Many items were scheduled for de-installation within a week. Others, like flooring, plants, the stone walkway pictured to the right, and the stone façade needed special arrangements. By the end of the project, over \$9,000 in materials had been recovered for reuse, and a grateful homeowner donated the additional \$3,200 to help greenGoat's work with like-minded homeowners



Harvesting stone
... some materials need special care.

Project Summary		
Timeframe	11/04 – 12/04	
Square Feet:	2,500 s.f.	
Diversion Results	Pounds	Value
Bathrooms	680	310
Dining Room	735	1,217
Living Room	595	817
Kitchen	2,570	4,770
Basement	80	80
Exterior	3,800	1,900
Totals	8,460	9,105
Cost Benefit		
Avoided Disposal ¹		\$450
Avoided Transport ²		\$80
Material value ³		\$9,105
Added labor ⁴		(\$300)
¹ based on tip fee of \$85/ton for 4 tons ² based RT of 24 miles and \$80/hour ³ estimated at 50% of retail. Sources vary: Ebay, building material showrooms, etc. ⁴ most labor intensive items: flooring, walkways, and copper pipes.		

Project Description

The project entailed a total home demolition and rebuild on the same footprint. In certain suburbs where the property values have skyrocketed in the last decade, this is a familiar story. A 50's ranch house often makes way for a two story colonial. Each project is a long process for the home owners, who may want to keep reminders from their past in the new home but may not have the room to store materials. The clients were frustrated at letting go of so many new appliances and wanted to distribute their materials to others in the community who might make use of them. GreenGoat worked to identify the items that would 'move' in post-consumer appliance showrooms and began making calls.

The construction and demolition bids had already been accepted, so the work needed to be coordinated entirely pre-demolition. The contractor was not interested in undertaking any recycling efforts, so the resource manager began making calls, placing ads, entering materials onto material exchanges, and placing items one by one.

Spotlight on Elbow Grease

Even the most tenacious efforts sometimes will not yield placement without ... hard work. In the case of the flooring, a single homeowner came forward wanting to recover the oak flooring. With over 400 square feet to cover, this would not be a one-man job. So volunteers at greenGoat took flat bars and hammers in hand to condense the job into a single day.

Once you're in the recovery business, every material seems worth some extra effort. It's hard to watch some things get ploughed into the dirt.

As demolition day got pushed back, other materials 'broke loose' (on weekends): the stone walkway was chiseled out of concrete; plants were dug up and given to neighbors; even a few granite blocks were pounded out of the façade for later use in a retaining wall.

There were a few serendipitous distributions to a nearby work crew. When told that they could help themselves to anything they found, the crew gleefully took advantage. Door hardware, fireplace frames, chimney caps and gutters found new homes 'on the spot'.

Costs and Benefits

The chief benefit of a project this size is to the community. Unless the project is managed with volunteer help (which is an option), it is very hard to make it work financially. The main lesson learned is that without a central collection point where small scale projects can deposit separated materials headed for recycling markets, the transportation cost of a small load will always overshadow the saved tip fees.

In this case, volunteer labor made all the difference. The receiving organizations de-installed the items and transported them back to their showrooms. The added labor on the walkway, façade, and flooring was voluntary too, but mostly a simple helping hand when one was needed. After all, greenGoat's tag line *is* 'saving more than money'!

In terms of material value, comparing value-per-pound from the first page points to the kitchen. In this case, the appliances were in great shape, and 22 pristine matching cabinets added a lot of value to the deal. A beautiful red granite countertop was gingerly pried loose and hoisted onto the

truck bed. Similar efforts with some marble fireplace details did not work out as well.

If an over exuberant installation professional goes nuts with adhesives or nails, deinstallation may not be possible. Such was the case with the hardwood floors in the basement. The flooring company used three longer-than-necessary nails across each plank, a row of nails every four inches. Someone loved his new nail gun!

How to Replicate

Ways to maximize savings on any site:

- Have the owner clearly label items that are not scheduled for salvage to avoid confusion
- Schedule several 'tours' during one block of time to avoid wasted time due to no shows.
- Do not take windows or other materials that will leave openings in the building for any period. It might invite vandalism or other kind of liability. Deinstall windows and sliders just before demolition.
- Get ALL brand names and product details for systems such as furnaces and water heaters. Get the age of the item and get an estimate of its value from a qualified professional.
- Make sure that materials meet current building code before putting them back in the market.
- Ask local schools and churches to put a list of available items on their message board.
- Stay in touch with the general contractor regarding demolition date, which may be moved up or back as permits are issued or vendors become available.
- Timing is everything. If the 'pitch' for recycling is done after the demolition job has been bid ... it's going to be an uphill battle.

Resource Management

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greenGoat diverts *post-industrial* (i.e. construction debris) and *post-consumer* (i.e. demolition debris) building materials out of landfills and back into other structures ... even other industries.